FoReM XE CBBS
Version 1.0
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BEFORE DOING ANYTHING, MAKE AT LEAST 2 BACKUPS OF THE MAIN PROGRAM
DISK!

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SECTION 0.0 - INTRODUCTION TO FOREM CONCEPTS

   Before attempting to use FoReM XE, it is important that you understand
before reading about each particular program, what FoReM XE does that
other ATARI bbs systems do not. This is because numerous programs
interact with each other and the descriptions of each program may
therefore refer to a program not yet explained.

FoReM XE has 4 major functions. There are:

1 Multiple message base/conferencing system.
  Forem can support up to 24 different message files where
  users can send message to any one or group of users.

2 Electronic Mail for private inter user messages

3 Data base section where any number of data files may be selected
from
  a menu with an option of submenus.

4 Upload download capability

With such a large amount that FoReM can do, and with the number of
less mature 'people' with computers whose only goal in life seems
to be to crash bulletin boards, it has become necessary to be
able to restrict access not only to the system as a whole, but to
individual parts of the system as well.

This also allows groups of users or special interest groups to
have their own section of the system.

FoReM XE allows the system operator to restrict the access to any
command function or any message base to any particular user
or group of users.

In addition, FoReM allows for remote sysop access and the sysop
if he choose may delegate certain sysop functions to trustworthy
users.

The ability to restrict these areas is because of a bit mapped
password. Any user on FoReM must apply for a system password.
This password must be 'validated' by the sysop. The password
contains information about the user such as his name,
phone number. 4 character login password...etc. It also will
tell the sysop, when he first called, when he last called,
how many downloads he has taken from the system..etc...
But the real significance is that there is a 6 byte bit mapped
area which tells the system what functions, message bases and
privileges the user can access.

SECTION 0.1

Any bbs system has a command set for the user. In FoReM, the
commands are:

A - Ascii/Atascii toggle, which is used to changed the translation
    mode of the the rs232 from 7 bit ascii to an 8 bit binary code
    for Xmodem protocol file transfers or Atari inverse video.

D - Download a file from the system

E - Enter a message in to one of the message data bases.

F - Directory of files available to the user

G - Logoff

K - Delete a message from message base

L - Leave a private message to the system operator

M - Enter the electronic mail system

P - Get user profile: Information about the user.
        number of times called
        first call date
        last call date
        number of messages entered
        number of files received
        number of files uploaded
        system time/access level
        user phone number
        user login name

R - Enter message read/scan/delete system

U - Upload a file to the bbs

Y - Yell for sysop - sysop may type from the keyboard to the caller.
    This is called 'chat mode'. when the sysop is logged on locally,
    it is refered to as 'terminal mode'

Z - Change message base

? - List of available commands

* - Display data base file

$ - Enter remote sysop commands

A user may be granted to use any or all of these commands.

FoReM can support (depending on memory and disk space), up to
24 different message data bases. A user may be given access
to 1 or more message bases. By restricting access to certain
message bases, you can set up areas for special interest groups
(sigs) where only members of the group could read a particular
message base.

FoReM has a system of user privileges where special capabilities
of FoReM may be designated to specific users by the sysop.

These privileges are:

THE SYSUSR:X PRivilege

If a message is address to sysusr:x where is a password level from 0
to 24,
the message will be flagged as mail to any user with a password level
greater than or equal to x. If the message is locked, only these
users
will be able to read it.

THE PRINT MESSAGE PRivilege

With this, after a message is read, the option prompt will include
the option to route the message to the system printer.

SEND ANONYMOUS MAIL PRivilege

With this privilege, the user can send messages with out his
name being displayed in the 'From' field.

READ ANY MESSAGE PRivilege

The user can read locked messages.

DELETE ANY MESSAGE PRivilege

The user can delete any message that he can read.

MAY SEND SYSTEM MESSAGE

The user may enter a message that is protected against the
FoReM internal space allocation routines.

DOWNLOADING/UPLOADING SYSTEM FILES:

   If the privilege bit to up/download system files in your password
is set, you can do this by giving the system the full filename at
the Filespec: prompt. This file name must include all 3 characters
in the filename extender. For example: U;DBFIL8.TXT

SECTION 0.2

   The ability to restrict/grant access to these function is due to
the password access nature of FoReM. In order to gain access to
the bbs, the user must enter in a 4 character password when he
connects
with the system. The users' entry in the password file retains the
following information about the caller.

     4 character password
     name
     phone number
     maximum line length
     ascii clear screen (cursor home) code
     number of calls
     first call date
     last call date
     number of files received
     number of files uploaded
     download file access level/time limit
     list of the functions that can be used
     list of message bases that can be accessed

various user set system parameters

the download file access is also used as a sysop level flag.
the sysop must give himself an access level of 25. This is
required to use some of the remote sysop features. It also
allows the sysop to not be restricted to a daily time limit.
A user is granted a number of allowed minutes per day of access
time. If he over runs his limit, he is logged off and will not
be allowed on until the date changes. Access level 25 avoids this.
This feature is described in detail in other sections.

SECTION 0.2.1

     As there are so many parameters that may be set for each user,
it is convenient to be able to set up a system where common groups
of privilege settings can be given to a user without having to
individually set the flag for each privilege for each user. Enter
the
makmask program. FoReM allows you to save of to 300 pre defined
combinations of privileges. In the remainder of this document, these
will be refered to as password validator bitmasks. The makmask
program
is an editor of user privileges. Password parameters may be edited
and
saved for recall by the main bbs program for online or remote
password
validation, or by the password validator program.

SECTION 1.0 - FILES ON YOUR PROGRAM DISK

(section 2 will describe the program files)

Your program disk contains the following files:

DOS.SYS and DUP.SYS are the disk operating system files. You must use
this DOS to run FoReM.

Autorun.sys is a binary file loaded at bootup which contains the 850
loader and a routine to load the main program menu.

Autorun.atr is a binary file to load the rs232 driver in the atr8000.
If you
are using an atr8000, then you must rename autorun.sys to autorun.850
and rename autorun.atr to autorun.sys. (see system setup)

Callstart.mpp is a binary load file to set up the mpp modem.
     (see system setup)

Start is a menu program that allows you to call one of the FoReM
programs.

Initbbs is a program to initialize and maintain your message files
and
to initialize the user password file. See description below.

Valdator is the password file utility. See description below.

Messbld is a utility for moving message bases from one disk to
another or to rebuild a message index file. See description below.

Messpnt is a utility to search the system message files and route
selected messages to your printer.

Pwsort is a utility to sort the user password file on 1 of several
fields.

PASFIX is a utility to eliminate bad records from the password file.

Makmask is a utililty for defining user privileges for the password
validator program

Diskutil is a utility for manipulating files on the system download
menu.

Pasprint is a utility for creating a list of the users in your
password
          file

ForemXE is the main bbs program.

Welcome.dat is the system welcome message displayed upon login. This
file
    should be changed using any text editor to tell the user the

name of the bbs he has contacted.

******For Info on FoReM Data bases, see section 2.11 description of
       command *

Dbsel.txt is a listing of the files in the system data base section.

DBfil1.txt is database file 1. This file is reserved for system
BULLETINS.
            This file is shown to the user at logon and is reserved for
             the sysop to post announcements or general information

Dbfil2.txt is a listing of local area of bbs's and is also reserved.

Dbfil3.txt is a user help file. This file is currently empty and is
            being revised. It will be a menu driven help for each
            of the system commands
*****

Funct.dat is a listing of the system commands available to a user
            that has full command privileges. (see the section on
            restricting functions)

Status.txt is output text for the profile function which shows a
user
               his status and statistics (number of calls...etc)

Mhelp and Mhelp1.txt are short and long command lists for the message
editor
            and are called by the enter message command.

Ultype and uplang.txt are descriptor files for the upload section.

Dir.txt and Dl.txt are output files for the file directory function.
              DIR.TXT is a menu of the available types of download
programs
              such as games and communications software. DL.TXT is
              called by forem and is a header for the download
directory.

Msea.txt is information to the user on the search for user name
command
          in the message editor.

Chat.txt is called by the yell for sysop function to inform the user that
            he does not have to sit and wait for the sysop to respond
            and may continue to use the system until the sysop breaks in.

Pasapp.txt is information to the new user applying for a password.

pntdoc is a driver program to print this documentation file to the
        screen and printer

SECTION 2 - THE PROGRAM FILES

2.1 START

The program START is a menu that allows you to select a FoReM system program.
It is automatically run when you boot up your computer with the program
disk in drive 1.

The option for the disk utilies does not send you to DOS. It selects the
FoReM download file utility.

Start will display a Menu of the available FoReM system programs. To load
the program of your choice, press the number corresponding to the selection
of your choice. If you chose to run the main bbs program, FoReM, start
will check to make sure the RS232 drivers are booted and if
the printer is powered on.

If using a smart modem, start will send commands to configure the modem.
As delivered, Start sets the wait for carrier
to 15 seconds and sets the modem to answer the phone on the second ring.

Do not turn the modem off after running the bbs as it will eliminate these
settings which help protect the system from system crashers.

START can not check if the printer is online; only if it is powered up and
connected. If the message "printer not online" appears, bring the printer
online, and type RUN.

If the 850 not booted message appears, you must reboot making sure that
the 850 is booted or if using an atr 8000, that your version of RDOS (MYDOS)
boots the rs232 handlers.

If all goes well, Start will inform you of which file it if going to run
and load the selected program.

If you hit SYSTEM RESET at any time, you MUST reboot the entire system
before running the main bbs program.

2.2 INITBBS - FOREM MESSAGE FILE INITIALIZER

The program INITBBS, is the program used to initialize and maintain your system
message files. In this system, the words 'message base','conference' and
'board' are used interchangably.

    Initbbs comes up with a menu of option to maintain your message and
            password system. They are:

2.2.1

    Initialize the entire system - used when first setting up the bbs

or upon a major crash. You will be prompted for the number
of message bases to initialize and their names. This system
can theoretically support up to 24 message bases, but
10-15 if a more practical limit.
When initializing a new system, you must allocate space for
user passwords. Initbbs will prompt if it should start a
new password file. answer Yes if starting a new system. If you
are simply reinitalizing all the message bases, you may retain
your old password file by answering No.

The first initialization:

Select option 'initialize bbs'. The program will prompt you for how
many message bases to set up and their names .This system will allow
up to 24 message bases; assuming you have the disk space.
Each message base can index upwards of 200 messages depending on the
amount
of disk space you allocate for each message base. If you attempt to
initialize
more message bases than will fit on one disk, initbbs will
automatically scan
up to the next disk. FoReM can have message bases on any disk drive.

The program will prompt you if it should initialize the password data
file.
The first time you init the system, you must answer yes. It will ask
you how
many passwords to allocate. Each password uses 125 bytes of disk
space and each
sector has 253 data bytes available. This is simply to pre-allocate
disk space
, so that as the system aquires uploaded files, it does not crash
when
attempting to save a new password. The system will automatically
increase
the size of the password file, if it tries to save a new password
past
the current end of file.

2.2.2

    Reinitialize one message base - used to restart a single message
base
        usually because of a disk failure. The file if it already
exists
        will be rewritten. This is used in the event of of an
unrecoverable
        disk error such as a bad sector (error 144) in the middle of
a
        message data file. To recover from such an error, you must
copy
        all good files to a new disk, and reinitialize any message
file
        that you could not copy the "message.da" file.
        You must then run "messbld" to recreate the system pointers.

2.2.3

    Reinitialize E-Mail - Used if a non recoverable error occurs in
        the electronic mail system. Use is similar to above...

2.2.4

    Rename a message base - changes the name of a message base in the
        system configuaration file. You will be given a list of the
        current message bases. Choose the number of the message base
        you wish to rename. When verifying the new name, you must
use
        capital letters when answering yes or no.

2.2.5

    Add message base - Add an additional message base to the system.
        You will be prompted for the name of the message base to
add.
        When verifying the the entry, yes must be answered with a
        capital Y. You must have a minimum or 80 double density
sectors
        free to use this option. Message bases can appear on any
drive,
        so initbbs will scan the drives until it finds the lowest
number

drive to which the message base can be added.

2.2.6

   Delete message base - If not the highest number message base in
        the system, all the remaining boards are renumbered. You
will be
        given a list of the current message bases in the system.
Enter
        the number of the message base you wish to delete.

2.2.7

   Add to password file - Increase the size of the random access
        password file to allow it to store more users. FoReM will
        automatically allocate space as needed. When FoReM
attempts
        to save a new password, if it gets an end of file error, it
        will append 1 additional 256 byte sector to the end of the
        password file and then reattempt to save the password.
This
        requires that you monitor the amount of free sectors on
Drive
        1. To get around this, FoReM allows you to preallocate
space
        for the password file. When your preallocated space runs
out,
        FoReM will again start to increase the file automatically.
        Unused passwords can be deleted automatically or selectivly
        using the password validator program.

2.2.8

    Configure number and type of drives online - FoReM XE, must know
        the number and density of the drives you are using.
        You will be prompted for the number of drives and the
        density of each. If you are using quad density drives,
        enter the code given for double density.

2.3 MESSBLD - FOREM MESSAGE INDEX AND CONFIG FILE REBUILDER

The program MESSBLD is a utility program used when an error occurs in your
data disk.   This system uses indexed sequential message files,
which are accessed by the atari random access note/point routines.

2.3.1

If your disk developes a problem such as a bad sector and you simply copy your
message files to a new disk, you will find that they no longer function due
to an error 164. If you move you data disk files to a new disk, you must
run both messbld and valdator to reset the system pointers.

2.3.2

The following procedure is used to recover from an error 144 or error 164
in any of the message.dax or message.isx (email.dat and email.ism).
Ususally you would only become aware of this error when reading messages
or when atempting to create a backup of your system data disk.

1) copy all good files on your data disk over to a new formatted disk.
2) If there was a problem in any of the message files. either a
   DA[x] or an IS[x] file, then reinitialize that particular file using the
   reinitaialize one conference option of initbbs.
3) run messbld to correct the DOS point values.

If you find an error 7,25 or 26 on you printer log, then a dos error
has occured in one or more of you data bases. This is the most common
error you will get with FoReM. To correct this problem, simply
run the FoReM message index rebulder (MESSBLD).

2.3.3

Messbld has an option to renumber the messages in each message
base.   This can be done to either just keep the message numbers low,

or to avoid a system crash when message number approach 9999 which is
the maximum number a message can have. You will be prompted for a
yes or no answer to renember messages.

2.4 FoReM Message Printer

MESSPNT

This program is used to selectively route messages to your printer.
You
can select to print the messages in one or all message bases, and or
search 1 or all message bases for message to a particular user, from
a particular user or messages send before or after a chosen date

2.4.1

Messpnt will open with a menu:

1 print all messages
2 print messages in 1 message base
3 print e-mail messages
4 set search on/off
5 toggle hard copy on/off

hard copy on
search off

select:

option 1 will print the messages in all message bases
option 2 will prompt you for the number of the message base to print
messages
         from.
option 3 will print the messages in th email section.
option 4 will allow you to set a seach parameter for modes 1-3. you
         may search on the from or to message field or on the
         date sent field. If you choose the date field, you may
select
         to search for message sent before or after a particular
date.

2.4.2

If search is set on, then messages satifying the seach field will be
printed.
Search fields are:
    sent before a particular date
    sent after a particular date
    sent to a user
    from a user

2.4.3

if hardcopy is on, all messages will be printed on you printer and
screen. If hardcopy of off, messages will only be printed on the
screen.

2.5 Password Validator

The program validate is used to maintain the user password file.
With
this program, you can change a user's name, password,access level,
phone number, age ,function, message base or privilege bit maps.

Valdator will come up with a menu of options. They are:

2.5.1

Check for new users only.
    This mode will search the password file for any user
    with an access level of 0.

2.5.2

Autovalidate new user.
    This mode will use a predefined access level/bit map mask
    to validate all new users without the system stopping
    and asking you to input parameters for each new user.

A utility program MAKMASK is used to create these bit
masks.

note:

When auto-validating, you can divide the system by age into
two groups. The system for prompt for validation by age.
A yes response will invoke 2 inquires. You must give
a cut off age and a bit mask to use for those above and
equal to the cutoff age and a bit mask for those below
the cutoff age.

2.5.3

Autodelete inactive users.
      This mode will prompt for a day count to delete any password
      that has not been used in that number of days. Be patient
      this mode takes a while to run. A 400 user file can take
      upwards of 20 minutes or so to complete.
      In addition, Autodelete has a parameter in that it will not
      autodelete those passwords above a given password level.
      As the sysop has level 25, the default is to not delete any
      password with a level 25. You will be prompted as to if you
      would like to have it only check those users below a
      password level that you enter.
      When auto-delete is activated, any password that is deleted,
      will have the password, name, phone # and last call date
      sent to the system printer. This is so, that if you need to,
      you can reactivate a user by using the password application in
      the main FoReM XE program.

2.5.4

Search
      This mode will allow you to search for a single name or
      password which you can then keep/delete/modify. If you
      delete it, the file must then be compacted, which again,
      takes time.

2.5.5

General edit
       This mode will stop at each password for examination/

modification/deletion.

2.5.6

Change levels
       This mode will allow you to change all users who have one
password
bit mask to another bit mask. You will be prompted for the old mask
and
the new mask. This is most useful if you add a new message base and
need to grant a group of people access to.

A password is displayed with a breakdown of all user parameters.
Since this is too large to fit on one screen, it is broken into
2 sections. Both sections have the option of dumping the users
parameters to the printer. The first section allows changing
the Age, Name, Password, Access level and Phone number.

The second section allows changing the function bits, the message
base bits and the privilege bits. Each user has a bit map of
system privileges he can use, a bit map of system functions
he can use such as read messages, upload, help, download...etc,
and a bit map of the message bases that he is allowed to read.

At the end of the first screen, valdator will prompt 'hit return
to continue or P to print' . If you hit P, then the screen will
be dumped to the printer.

You will then be prompted 'Retain Password'. Respond with Y or N.
If you answer N, the password will be deleted and valdator will go
on to the next password.

2.5.7

A Y will prompt 'validate with saved bit mask?' . Note that this
will only appear if the output file of MAKMASK (validate.dat)
is on your data disk.

A Y will return a prompt for the mask number to use.

2.5.8

If you answered N, valdator will return a 'Change Status?'
Yes will allow you to change the age,name,password,access level
or phone number of the user.

No will return 'Review/Change Privileges?'
No will save the updated password and move to the next password
entry'

Yes will allow the changing of privileges as defined below:

             bit map of allowed privilege functions

             0 may use remote sysop commands($)
             1 may up/download system files
             2 may get name of sender of anonymous messages
             3 may send message to system printer
             4 may delete any messsage
             5 may read locked messages
             6 may send sysusr messages
             7 may send anonymous messages

             bit map of allowed functions

             byte 51   byte 52

             7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
             M $ P Z G K E R   F U D L Y A * ?

             bit map of message bases the caller can access

             54   55   56
             7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
             x w v u t s r q   p o n m l k j i   h g f e d c b a

Valdator will return will a password mask breakdown.
  A prompt to hit return or P to print will appear.
Hit return.

valdator will then return a menu of parameters/privileges you may
edit.

1- functions
2- messages bases
3- privileges
4- user functions

You should edit each catagory for the mask.

For each of category 1-4, you must set the privilege you wish the
mask to set. For each category, makmask will return a full screen
of the privileges/restrictions in that category. Each privilege that
is allowed will be shown in inverse video . Move to cursor under each
privilege using the left and right arrow keys (without hitting
control).
To turn the privilege on, press the select key. To turn the
privilege
off, press the start key. when you have finished setting all the
privileges, press the option key to return to the menu.

*****

Notes:

1- functions are designated by the actual command used in FoReM
   if the command designator is shown in inverse video, the user
   is allowed to access that function.

2- message bases are designated by letter, however the user of FoReM
will
   enter a number to changes message bases. Message base 1 is
designated

here and in its filename by A.

    1-a
    2-b
    3-c
    .
    .
    24-x
    if the letter corresonding to the message base is shown in inverse
    video, the user may access that message base.

3- privileges are shown by a display of the bits and a description
    of what they mean on the lower half of the screen. The bit number
    in inverse means that the corresponding privilege is allowed.
    In additon a 0 (off) or a 1 (on) will appear by the description
    of the function of the bit.

4- same as 3

*****

Note: for advanced users:
You can bypass some prompts at the 'hit return or p to print prompt'
if you are going to validate by mask. At this prompt, if you
hit the control code that is the ascii value of the mask you want
to use, it will be accepted then, bypassing the retain password...
ex: to use mask 1, hit ctrl-a; 2-ctrl-b..

2.6 Password Validator Mask Maker

The program MAKMASK is used to generate of file of predefined bit
masks
to be used by the valdidator program. Since you can restrict 64
functions on each users password, it is rather inconvenient to have
to set each parameter individually for each user. When validating
passwords, the most common elements to changes, are the users
access level, what functions he can use, what message bases he
can use and what system pivileges if any, you can use.
By creating a set of bit masks, for each acces type, you can

set the parameters for a user much more rapidly.
 Using MAKMASK, you can create or edit these bit masks as you
please. Any set of allowed functions is valid.

Byte 49 of the users password is his access level

The following privileges are defined by the value of password byte
50.

THE SYSUSR:X PRivilege

If a message is address to sysusr:x where is a password level from 0
to 24,
the message will be flagged as mail to any user with a password level
greater than or equal to x. If the message is locked, only these
users
will be able to read it.

THE PRINT MESSAGE PRivilege

With this, after a message is read, the option prompt will include
the option to route the message to the system printer.

SEND ANONYMOUS MAIL PRivilege

With this privilege, the user can send messages with out his
name being displayed in the 'From' field.

READ ANY MESSAGE PRivilege

The user can read locked messages.

DELETE ANY MESSAGE PRivilege

The user can delete any message that he can read.

DOWNLOADING/UPLOADING SYSTEM FILES:

   If the privilege bit to up/download system files in your password
is set, you can do this by giving the system the full filename at
the Filespec: prompt. This file name must include all 3 characters

in the filename extender. For example: U;DBFIL8.TXT

byte 50   bit map of allowed privilege functions

                    0 may use remote sysop mode($)
                    1 may up/download system files
                    2 may get name of sender of anonymous messages
                    3 may send message to system printer
                    4 may delete any messsage
                    5 may read locked messages
                    6 may send sysusr messages
                    7 may send anonymous messages

bytes 51 and 52 restrict the use of functions

51-52   bit map of allowed functions

                    byte 51   byte 52

                    7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
                    M $ P Z G K E R   F U D L Y A * ?

bytes 54,55 and 56 restrict the use of message bases

54-56   bit map of message bases the caller can access

                    54   55   56
                    7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
                    x w v u t s r q   p o n m l k j i   h g f e d c b a

Makmask allows you to store on disk any number of combinations
of these restrictions. When validating a password, you can then
simply tell FoReM to use one of these predefined validation
masks to set up the users password instead of entering all the
restrictions for each user one by one.

Makmask will prompt you to create a new mask or to edit an existing

mask. It is suggested that you create a mask for each access level
(1-25) in order so that when you give a mask number to FoReM or the
password validator, that number will corresspond to the access
level you wish the user to have.

You must set up one mask for level 25 that has all of the privileges
set so that you may validate your own sysop password.

2.6.1

Create Mask:

   Makmask will return will a new password mask. All entries will be
blank. A prompt to hit return or P to print will appear.
Hit return. Makmask will then prompt 'Change Profile?'. This is
a prompt to exit the editing of this password mask. If you answer
YES, Makmask will then prompt you if you wish the mask to be saved.
If you answer yes, Makmask will return the mask number. When you
wish to validate a password with the created mask, this is the
number that FoReM or the password validator is asking for.

   To edit the password mask, enter N to the change profile prompt.
Makmask will then return a menu of parameters/privileges you may
edit.

1- functions
2- messages bases
3- privileges
4- user functions
5- access level

You should edit each catagory for the mask. First select 5 to set
the
access level for the mask. You will be prompted to enter a
password access level. Valid entries are 1-25. 25 is reserved for
sysop access. This number reflects both the amount of time the
user may have on the system (14 minutes + 5 * access level) and
the restriction to download files. He may see any file that
has an access level below or equal to his own.

next for each of category 1-4, you must set the privilege you wish the
mask to set. For each category, makmask will return a full screen
of the privileges/restrictions in that category. Each privilege that
is allowed will be shown in inverse video . Move to cursor under each
privilege using the left and right arrow keys (without hitting
control).
To turn the privilege on, press the select key. To turn the
privilege
off, press the start key. when you have finished setting all the
privileges, press the option key to return to the menu.

*****

Notes:

1- functions are designated by the actual command used in FoReM
   if the command designator is shown in inverse video, the user
   is allowed to access that function.

2- message bases are designated by letter, however the user of FoReM
will
   enter a number to changes message bases. Message base 1 is
designated
   here and in its filename by A.

   1-a
   2-b
   3-c
   .
   .
   24-x
   if the letter corresonding to the message base is shown in inverse
   video, the user may access that message base.

3- privileges are shown by a display of the bits and a description
   of what they mean on the lower half of the screen. The bit number
   in inverse means that the corresponding privilege is allowed.
   In additon a 0 (off) or a 1 (on) will appear by the description
   of the function of the bit.

4- same as 3

*****

When you have set the privileges in each catagory, answer No to the
change profile prompt to either abort or save the password mask.

2.6.2

Edit mask:

Edit mask is functionally the same as create mask, however you
will be prompted to give the number of a currently existing mask
to edit. Changing privileges is the same as creating a new mask.

2.7 Password Sorter

2.7.1

The Program PWSORT is a utility which will allow you to sort your
password
file on one of the following fields:

Password
Name
number of calls
age
access level

2.7.2

You will be given a list of sort fields possible. Select by number
the field
you wish to perform the sort on. You will then be prompted to sort
the
file in ascending or decending order.

Sorting by name, will make the output of the Password lister easier
to read and locate a user.

Sorting by number of calls in decending order will allow you more
freuquent users to log on faster because of less time required in
searching th password file.

Sorting by access level will allow you higher level users fast
logins.

IMPORTANT NOTE!!!

    This program is extrememly SLOW. Just be patient. It may take
more than
an hour to sort a large password file. There is nothing in this
program that
can lock up the computer. Just let it run until the finished message
appears.

2.8 PASSWORD FILE FIX

The program PASFIX is a utility which will hopefully allow you to
recover
from an error or crash of your password file. The password file is
made
up of 125 byte records where the 125th byte is a c/r which signifies
the
end of record. Pasfix will eliminate any record that is not 125
characters
long.

2.9 FoReM DISK UTILITIES

The program DISKUTIL is a utility program to manipulate the download
files.
Besides the ability to delete a dl file, this program manipulates the
qualifiers on the dl filename. These parameters are translation mode,

program language, program application and access level required to
download the program. Since Atari is not the only computer made,
there
are language types for apple, commadore, cpm, ibm and epson computers
along with every major language available for the atari.

2.9.1

FoReM uses the following file extenders

.txt forem text file
.dat forem data file

in reality, these two are used at random

the download/uploaded files when encoded extenders.

the all of these files will have a 3 character extender where:

character 1 - language of file
     listed ataribasic
     saved atari basic
     basic XE
     action
     assembly
     object file (binary)
     c
     pascal
     ibm
     apple basic
     apple object
     commadore basic
     commadore object
     cpm
     Advanced Music system
     text
     graphics files

character 2 - type of file

     game
     communications

```
      applications
      graphics
      text
      music
      demo
      utility


 character 3 - minumum access level required to download the file.


     Valid FoReM access level are 0-25.  Value is coded by the
letter corresponding to the number. (0-A 1-B....25-Z)



2.9.2


Upon running, Diskutil will start with drive #1. You will given a
list
of the download files on the disk along with a menu of commands.  A
file
that has an asterisk next to it, has either or both of the language
type
or program type descriptors not set yet. Diskutil commands are:
1 delete
2 change access level
   This is the minimum access level required for a user to be able
   to see the file and download it.
3 change translation mode.
   If the file has inverse or control characters, it must be
downloaded
   in atascii translation or using xmodem protocol.
4 change type descriptor.  What kind of program it
is..game,utility,demo...
5 change language despriptor. (Basic, binary file...)
6 Print descriptor.
   Print the file descriptor to screen or printer
7 Next drive.


Command format is : Command - File number


command 7 requires the drive to goto or it will default to the next
drive.


You can chain commands as shown here:
```

2-3;1/4-3;X/6-1

This will give a level 1 access to file #3, put a text descriptor on file
3 and print the descriptor of file #1

2.10 FoReM XE MAIN PROGRAM

2.10.1

The program FOREMXE is the main bbs program. Upon running, you will be
prompted to enter the time and date. The date must be in the format
mm/dd/yy. If you use any other format, errors will be converted when
FoReM converts the numeric date to Text date (Jan 5, 1988). FoReM will then
set up a display list giving you a 19 line monitor (all output is echoed to
the screen) and a 5 line text window. This window will tell you a number of
things about the current caller. Included are his name, access level,age and
privileges,the time he logged on, time last caller logged off,
the functions he has used (reset at mod 20=0), his caller number
and the number of callers since bootup; the current disk file in use;
the current 850 translation mode; the number of messages in the system
the number of messages entered since bootup, the number of files uploaded
since reset, the number of files downloaded since reset and the current
number of free sectors in total on all drives. This number is updated
when a user uses the F command.

The baud rate of the system is shown by the Mod parameter. Mod will appear
in inverse if running 1200 baud.

ex.

```
Na : SYSOP               CNo: 23000-1
Lvl: 25  Age:23  P:255    Fil: DBFIL1
LoT: 11:20 PM O: 11:30 PM Mod: ATASCII
Log: YRZ3*G               Mis: 150 - 1
Up : 001       Dl: 0004   Fre: 00345
```

The program will then display the current time in the center of the
screen.

This is the wait-ring mode

OPTIONS DURING WAIT-RING MODE

2.10.2

Pressing the C key will toggle saving the userlog to the disk
instead of the printer for viewing using the $ command.

Pressing the B key will toggle the sysop paging system on and off.
A graphic representation of the system being on or off is shown
in the lower right hand corner of the text window.
see P command above

Pressing the E key will end the { program and save the current
system configuration to disk. If you do not end the program in this
way,
the only detrimental effect will be that the caller number may not be
correct.
There will be no harm done to any random access file.

Pressing the L key will allow you local access to the system.
The system will return with a prompt for password.

Pressing the P key will force packing of the message bases.

Pressing the & key will dump the userlog to the printer without
restarting
the disk file.

Pressing the % key will dump the userlog to the printer and restart the
file.

% and & only work if the flag to save the userlog to disk is active.

2.10.3 SYSTEM COMMANDS

2.10.3.2 COMMAND STACKING

   A limited degree of command stacking is implemented in FoReM XE.
It will be described below as it pertains to each individual command

2.10.3.2

A- Atascii/ascii toggle:
   Atari computers talk in a dialect known as Atascii which stands
for
   Atari Ascii. This is a 8 bit code that only atari's understand.
   Upon logon, the system will ask the user to hit the return key.
   Hitting return will the the system if the user is sending Atascii
code.
   If an atari user does this in ascii, if he attempts to download
   a file that was meant, for atascii, it will be of no use. This
option
   will allow the user to switch to atascii or ascii mode from the
main
   FoReM> prompt.

2.10.3.3

D- Download:
   Returns a prompt for a filespec to transfer. The system will
search for
   the file on all drives and either return a file not found message
or
   a request to start the file transfer. This system does support
the
   xmodem file transfer protocol of Amodem for the Atari and also for
   Apple, IBM and CP/M machines.

this command allows stacking. you can bypass the filspec prompt,
by using the filename in the command string. ex: D;AMODEM

In addition, if the user has the privilege to download system
files,
a full filespec including the extender may be given. This is
meant
to be used by the sysop to download system files from a remote
location.
ex: D
Filespec: Welcome.dat

A check is first made to see if the user has enough time
remainging
to complete the file transfer. If the user does not have enough
time remaining, the download is aborted.

2.10.3.4

E-Enter Message
  Enters the message editor for the message base currently in use. A
  message can be either 15 lines of 80 characters or 30 lines of 40
  characters. This is based on the maximum line length the user
  gave when he requested a password.

LINE LENGTH PARAMETER:

  Purpose of the user line length parameter:
   the system asks the user for his maximum line length. This does
not
  add a cr/lf at end of that many character of output. Many user
with
  80 column displays do not like to be restricted to 40 column lines
  when entering messages. If a user selects a line length of 41 to
80
  characters, he will be allowed to enter messages of 15 lines of
that
  many characters. If he selects 40 or less, he can enter messages
of
  30 lines of that many characters. A message to sysop defaults to
  15 lines of 80 characters.

2.10.3.4.1

  The editor performs word wrap. that is, if the last word on a
  line were to be longer than the allowed line length, the system
  will move the entire last word to the next line. This obviously
  will not take place on the last allowed line.

  The message editor has its own full command set.
  All Commands must begin at the beginning of a line
  and have a / as the first character.

  Message editor commands.

  /a abort message
  /s save message
  /? or /h list of message editor commands
  /lnn list nn number of lines beginning with the current line.
        if nn is omitted, then the default is to list the entire
message
  /gnn goto line number nnn for editing that line
  /c/svar1/svar2 change the first occurance of string svar1 with
string
                  svar2 in the current line
  /b   goto last line in message
  /t   goto line 1 of file
  /unn go up nn lines
  /Nnn go down nn lines
  /Dnn delete next nn lines

  If an invalid command is given, the list of commands will appear.

  Upon entering the message system, the user is asked for a message
  subject. If a c/r is hit, the editor will abort to the main menu.

  The next prompt is whom to send the message to. Hitting return
  will address the message to 'ALL'. Entering a ? will enter
  the user search system. The user will be prompted to searh for
  the beginning string in a name or to check the names of all users.
  For example. If you didnt remember how to spell if John Smith
  spelled his name Jon Smith or John Smyth, you could search for
  Jo. The system will stop at every name beginning with Jo and
  ask 1-ok 2-cont. If you answer 2, the sytem will continue to
  search the user password file for matches. If you answer 1, the

system will take that name as the addressee of the message.
If an end of file is reached with no match, the user will then
be reprompted for a message addressee.

If the message is not addressed to "ALL", the user is then prompted
if to make the message only readable by the address.
Read only by John Smith? Y
A yes answer will allow only John Smith to read the message. Since
the system will only let 1 user have the exact spelling "John
Smith",
no one else will be able to read the message. When John Smith logs
on, if he checks for messages addressed to him, the message # and
who sent it wll be displayed. When he reads the message, it will
be flagged as received and will no longer be displayed when he
checks for messages addressed to him. Also, when read, the
message will have a flag stating that it is a locked message to
him.

If the user has the privilege to send anonymous messages, the
next prompt is a request to send anonymously. If yes, then when
read, the message will be listed as being from anonymous. However,
the system does record who sent the message and this information
can be obtained if the user has the privilege to get the name
of the sendor of anonymous messages.

the message is then entered...

upon a /s save command, if the user has the privilege to send
system messages, a 'delete protect?' prompt will be displayed.
If a y is entered, the message will be flagged as a system message
when read. In addition, the message will not be deleted by the
auto packing system, when the message file fills up. The message
may only be deleted by the sendor and the addressee.

the system will then display a message giving the saved message
number and return to the main menu.

2.10.3.5

F-File directory:
  Gives a list of the files available to the user. A list of program
  types (games, utilities...) is displayed. The user will enter the

letter which describes the files to search for. If an A is
entered,
   the system will show all the files he has access to. Access is
limited
   by the system access level. A download file has a 3 character
extension
   which describes the file. First character is the language the file
   is in (o:object, B:basic XE, L:listed basic...etc). The second
   character is the type of program (g:game u;utility
c:communications).
   The last character is the alphabetic equivilent of the minimum
access
   level required to download the file; where level 0 (new user)
corsponds
   to A and sysop level 25 is Z. These extenders must be on every
download
   file. They can be set using the diskutil program. In addition,
   they are set by the user on a new upload. On an upload, the access
level
   is set to 1 of 3 values. A or all, Z for sysop only or to the
   users own access level.

   This command can be chained. ex: F;A F;G
   In addition, if the user has the privilege to down/upload system
   files, you may enter in a will extender. for example:
   F;??Z will check for all uploads to sysop
   F;OGA will check for all binary load games available to level 0 and
so on.

2.10.3.6

G-Goodbye/logoff
   If the caller is a new users, he will be prompted to save his
   password for future use. If yes, his password will allow him
   access on his next call, although he will still be a level 0 user.
   the user will then be shown his connect time and logged off.

2.10.3.7

K-Kill message...see R

2.10.3.8

L-Message to sysop.
  Same commands as enter message, however, no subject and the
  message is routed to the system printer. This command will
  always be 15 lines of 80 characters.

2.10.3.9

M-Electronic mail
  In reality, this is simply another message, however, it has
different
  characteristics. Upon entry, the user told if he has any
  messages waiting. If not, he will be given the option to
  send mail, change his message paramter, or exit. the message
  parameter is whether the system will stop at the end of
  each message and request a command to reply,delete,exit or
  if it continuoulsy scrolls thru all messages.

  If he has mail addressed to him (read or unread), he will be give
the
  option to read or "brief" where brief will show the header of the
  message and not the message body. In either case, he will be
prompted
  read those messages address to him, from him (to check if mail he
  send has been received) or all. If the user has the privilege to
  read locked messages, read all will read every message in the file
  no matter who it is to or from.

  If continuous scroll parameter is on, at end of the message, there
  will be brief delay. If the user hit any, the end of message
commands
  will appear. If no key is hit in 3 seconds, the system will scroll
  to the next message.

  If cont scroll is off, or the commands are requested, then the
  user is given a list of commands based on his privilege bit
  settings. He may read the message again (A). Get the next message(N
  or c/r). Exit to the main menu FoReM> prompt (M). If the message
  is to to from the user, then he may (D) delete it. If he is
  allowed to enter messages, he may (R)eply to it. If he has
  the privilege to route message to the system printer, he may
(P)rint

it. These commands may be chained in any order as long a N or M is
the last command. It is suggested that D/R be used for delete and
reply and not R/D.

when a message is replied to, the subject will remaint he same.
The message editor is entered at the READ ONLY BY... prompt.

all editor functions are the same however an e-mail message
cannot be delete protected. When a message is sent or deleted
from Email section or the Read/Scan message section, the message
index is
not saved to disk until the user exits to the main menu. It will
still
be updated if the caller hangs up. The only detrimental effect
would
be if the system locks up. If this is the case, the messages saved
would not appear and the deleted messages would still be there.

At the command prompt, if a message is addressed as being from
'anonymous' and the user has the privilege to get the name
of the sendor on anonymous messages, a $ will diplay the name.

In additon, if an anonymous message is replied to, it will
be flagged as mail to the original sendor.

2.10.3.10

P-Profile
  This function shows the user his statistics and terminal
parameters.
  He is shown his name, phone number, first call date, last call
date,
  number of calls, number of files upload and downloaded, number of
  messages entered, his access level, his ascii clear screen code in
  decimal form,his max line length and his time on system clock
  display status. If on, he system will display the connect time at
the
  end of each message and at the FoReM> prompt. the user is given
the
  option to change his password, phone number, terminal settings
  (line feeds, line length and ascii clear screen) and his
  time on system clock display (on/off). In either case, the connect

time will be display during the final 5 minutes of alloted time on
the system.

2.10.3.11

R-Read/Scan/Delete Messages

FoReM will first check for messages to the user. If any are
found,
a list of messages will be display which can be read directy
using
the [F]lagged command.

The system will then display the # of messages in the message
base, the first and last message message numbers and the high
message number that the user has received. A command
option string is display.

Read
Brief
Cont
titles
Delete
Quit   (goes to main FoReM> prompt)

In additon, if there were messages address to the user and
and a message check was done, a Flagged command will appear.
If the user may send messages, the Send command will appear.

Read is a full message read.
Brief will display only the header of the message
      (message number,date, to, from, line count, subject,
recived)
titles will display only the message number, subject and date.
   In this mode, after each message the user will be asked to
   mark the message for future retrieal. If he marks any
messages
      an addition 'marked' command will appear. If the next
      message command is "m", then only those message marked

for retrieval will be read. Notes: only 16 messages may be marked.

M must be the next command or the list of marked messaged will be lost.

For Read/Brief/Titles/Flagged, the next prompt is a
from-to +/- for full for/rev read or c/r for main menu
A return will go to the FoReM> prompt. A - or r will read all messages in
the reverse direction. + or f will read all messages in the forward
direction. 1-10 will read messsages 1 thru 10 inclusive.
1,4,7,2 will read the list of messages.
Enter N will read in a forward direction messages which are higher
than the high message number received.

If continuous scroll parameter is on, at end of the message, there
will be brief delay. If the user hit any, the end of message commands
will appear. If no key is hit in 3 seconds, the system will scroll
to the next message.

 If cont scroll is off, or the commands are requested, then the
 user is given a list of commands based on his privilege bit
 settings. He may read the message again (A). Get the next message(N
 or c/r). Exit to the main menu FoReM> prompt (M). If the message
 is to to from the user, then he may (D) delete it. If he is
 allowed to enter messages, he may (R)eply to it. If he has
 the privilege to route message to the system printer, he may
(P)rint
 it. These commands may be chained in any order as long a N or M is
 the last command. It is suggested that D/R be used for delete and
 reply and not R/D.

 when a message is replied to, the subject will remaint he same.
 The message editor is entered at the READ ONLY BY... prompt.

 all editor functions are the same .When a message is sent or
deleted

from the message section or the Read/Scan message section, the
message
   index is not saved to disk until the user exits to the main menu.
It will
   still be updated if the caller hangs up. The only detrimental
effect would
   be if the system locks up. If this is the case, the messages saved
   would not appear and the deleted messages would still be there.

   At the command prompt, if a message is addressed as being from
   'anonymous' and the user has the privilege to get the name
   of the sendor on anonymous messages, a $ will diplay the name.

   In additon, if an anonymous message is replied to, it will
   be flagged as mail to the original sendor.

 The delete option will return a prompt for the message # to delete.
 A return will go back to the command prompt. If a valid message
 number is given, the message header will be displayed along with
 a prompt to delete or to go to the main menu.

when in the read message section, or at the FoReM> prompt
you can use r;[list] or t;[list] where list is either a message
range or list of message numbers.
+ and - for full forward or reverse work here as well.

also when reading messagess, the reply, delete and main menu
parameters
at the end of a message can be queued so that
d/r/m d/r d/m r/m r/d/d r/d all work. m must always be last.
It is preferable to have the d go before r so that an extra message
is not
rolled off the index queue.

At the message *select prompt, a Z command can be executed
   to change message bases from within a message base.
   See below description of Z for details.

2.10.3.12

U-Upload
  The system will ask for a file name. The user is asked for an
  access level to make the file available to.(all, sysop only
  or users of his access level and higher).
  This name is then checked
  for matches on all drives. If match is found, the user is told
  to use another name. If not match is found, the sytem will
  then ask if the user is using the Xmodem file transfer protolcol.
  Next, the user is asked for the length of the file. The sytem will
check
  each drive (highest # first) to see which drive can take the
upload.
  If none can, the user if so imformed. If there is room, the user
  will be given a list of descriptor for the file type and language.
  If either is, left off, the upload will be aborted. Finially,
  the file is open and the transfer begins. If an error or time
  out occurs during the transfer, the upload will be aborted and
  the partial file deleted. If the user is not using xmodem, the
  system only allow a 900 byte file unless the users terminal
  emulator supports xon/off protocol.

   this command allows stacking. you can bypass the filspec prompt,
   by using the filename in the command string. ex: U;AMODEM

   In addition, if the user has the privilege to download system
files,
   a full filespec including the extender may be given. This is
meant
   to be used by the sysop to download system files from a remote
location.
   ex: U
   Filespec: D2:Welcome.dat

   NOTE: if uploading with the privilege bit set to allow
up/downloading
         of system files, you must , when uploading, give an extender
on
         the filespec. You may either give it the exact file name to
         appear on the disk, or if you give an extender of .NNA (ex:
         AMODEM.NNA) , FoReM will then ask you for language, type and
         access level.

2.10.3.13

Y- Chat mode.
   If the system page is on, then the console bell is rung. To respond,
   the sysop hits the start hit. At this point, the sysop may use
   the console keys to save the converstation or the esc key to
   exit to the main menu. If the y function is used from the local
   mode, the system becomes a terminal emulator.
   (see below)

2.10.3.14

Z-Change message base.
  The user is give a list of the message bases he is allowed to enter.
  The selection is done by number. He will only see those message
  areas that are assigned to him in his password file entry.

when changing conferences, you can use z-x;from-to   or Z-X;#;#;#;#
where x is the conference number and from and to are numeric values
or where # are valid message numbers.
z-x;e will route you to enter message on board #x
z-x;m you change boards and bring you to the main FoRem> prompt

2.10.3.15

*-Database section
  This command will display a list of the available text files.

Data bases can have a sub menu. To create a sub menu driven data
base, Any file that is a menu for addtional files should be
listed in dbsel.txt as xD where x is the number of the file. For
example
      3D) help

When user enters 3D as his choice, dbfil3.txt will be seen with
a select prompt at the end. dbfil3.txt would then be a list of
additional file. for example

   3D) help   could return

```
  50) Atascii mode
  51) Xmodem
  52) Reading messages

  Your choice is
```

2.10.3.16

  no longer implemented

2.10.3.17

$-sysop remote disk access
  this function has 2 protections. First, you must be able to
  use the $ function. Then you must also have the privilege
  to enter xio commands. This function allows a sysop to rename,
  delete, lock and unlock system files. The system will respond
  with 'ok' whic is a request for command #. see the basic XE manual
  for specifics. The next prompt is 'to who' and the is the filespec
  of the xio command. If an xio 254 (format disk) is entered, the
  system will not format, but rather page the sysop. this is an
  addition protection against a random blip changing someone's
access.

  A command of S will give system stats including the number of
  system errors, # of download, uploads, fre sectors, # of callers,
   number of messages in the system, size of the file buffer, the
  status of the system page flag and the flag to save the userlog to
  the disk.

  If the save userlog to disk flag is set, then
  A command of N will display the user log. The user log is kept as
  lenghty as possible. The file USRLOG.DAT is appended when a
  user logs off. If the file is large enough so that it would not
  leave, at least 15 free sectors on drive 1, the file is
  automatically dumped to the printer and restarted.

  A command of P will search the password file for level 0 (not
  validated) users. A MASK: prompt will appear for the number of
  a password validator mask. If you enter a 0, you will be given
  a list of the users status and a prompt to change password,
  phone number... It is not listed on the prompt, an answer here

of 5 will prompt for a name change. this requires password level
25.
  Hitting return instead of a mask number will not change the
  password and go on to the next.

  A command of V is functionally the same as P, however, you will
  prompted for a password to search for.

  A command of B will toggle the system page bell, on/off.

  A command of C will toggle the save userlog to disk/printer flag.

2.10.3.17

   ? - menu of commands

2.10.4

CHAT/TERMINAL MODE:

The sysop can break into chat mode by hitting the start key whenever
the system is waiting for input from a caller.

to exit from chat mode, press the escape key.

When in chat/terminal mode, hitting any console key will dump the
contents of the screen to the printer.

When in local mode, if you use the y command, the system becomes a
simple
terminal emulator. This is normally in atascii translation.
However,
you can switch to ascii, by using the 'A' command before the y
command
and hitting any key except return at the hit <return> prompt.

2.10.5

SYSTEM PRIORITY:

The system operator has priority when a caller is online. All
system
output that the caller sees is also echoed to the screen. When the
system
is waiting for input from the caller, the sysop can locally type over
the
callers input. In this way, you can enter commands for him.
In addition, when the system is waiting for input, the computer's
console
keys have the following functions:

Hitting any console key will return an ok prompt on the system
screen.

The following commands are then valid.

P to use online password validation
H to log the user off
C to break into chat mode
S to stop the system
T to give the user more than his alloted time. This will return a
"t:?"
  prompt. Enter the amount of time you wish to give the user.

2.10.6

ONLINE PASSWORD VALIDATION

You can validate a user's password while he is online. While the
system
is waiting for input from the user (for example it is sitting at the
FoReM> prompt), press any console key. FoReM will return "ok?".
enter a P.
FoReM will return "Mask: ". Being able to validate while online
assumes
that you have created password bitmasks using the makmask utility.
The prompt Mask: is asking you for the number of the mask that you
wish to use on the password. If you select a mask that does not
exist, FoReM will generate an error msg on your printer and will
not change the password. FoReM sequencially reads the file

VALIDATE.DAT for the mask number that you select. I suggest that
you set up a password mask for each level of access for ease of use.

NOTE ON ACCESS LEVEL 25:

Level 25 can download files that have been uploaded to sysop only,
and
level 25 ignores the on system time clock.

2.10.7

TIME ON SYSTEM CLOCK

A user is restricted to the amount of time he is allowed on the
system. This
time is equal to 14 minutes + 5 minutes for each level of of
password, So
for example a level 6 user has 14 + (5*6) minutes PER DAY allowed on
the
system. When he logs off, his connect time is stored in his password
entry.
If he calls again on the same date he logged off on, he is only
granted the
remaining time for that call. You can over ride this on a particular
call, by hitting option while the system is waiting for input from
the
user. Poke location 1536 with the number of minutes you want the
caller to have on that day. Then type GOTO 70 to continue.

A caller is not charged connect time during chat sessions or if the
system has to compact a message base.

SYSTEM TIMEOUT:

the user will be automatically logged off if there is no input in
approx 3 minutes.

2.10.8 ADDING DATA BASE FILES

FoReM allows you place have any number of text files online
accessible through the * function. A file named DBSEL.TXT is a
description of the data base files. A database file has the
name DBFILX.TXT where X is a number between 0 and 999. This number
correspondes with a file number in DBSEL.TXT. For example, the
system has 3 dedicated database files. DBFIL1.TXT is the bulletins
file. DBFIL2.TXT is a listing of other bbs phone numbers.

Data bases can have a sub menu. To create a sub menu driven data
base, Any file that is a menu for addtional files should be
listed in dbsel.txt as xD where x is the number of the file. For
example
     3D) help

When user enters 3D as his choice, dbfil3.txt will be seen with
a select prompt at the end. dbfil3.txt would then be a list of
additional file. for example

   3D) help   could return

   50) Atascii mode
   51) Xmodem
   52) Reading messages

   Your choice is

To add a data base file, first create file file using any text
editor.
Name the file DBFILXXX.TXT where XXX is a 1 to 3 digit number that
identifys the file.
Then , edit DBSEL.TXT and add an entry with the Number of the data
base file and a description of the file. If the file is a menu to
additional files, end the file number (only in dbsel.txt) with a
capital
D.

ex. DBFIL9.TXT

add to DBSEL.TXT ...

9) latest atari news

If dbfil9 is a submenu to for example help files, the entry would be

9D) help

2.10.9 UP/DOWNLOADING SYSTEM FILES

See sections 2.10.3.3 and 2.10.3.12 for information on the command
sequences to download or upload system files. Note that while it
is possible to download the password file (PAS.DAT) and re-upload it,
doing so would crash the system, the next time a password is
attempted
to be saved.   The same is true of downloading message base data
files
This feature is designed for the updating of data base files.

2.10.10 DEFAULT NEW USER PRIVILEGES:

New user priviledges are taken from the data file VALIDATE.DAT which
may be
created/edited by the program MAKMASK. The first entry in this file
is
used to validate a new user logon. You must edit password validation
mask
number 1 to contain the new user and guest privileges you desire.

MOST SYSTEM DATA AND TEXT MUST BE ON DRIVE 1

EMAIL.DAT,EMAIL.ISM,MESSAGE.DAA,MESSAGE.ISA,CONFIG.DAT,DBSEL.TXT,DBFI
L1.TXT
STATUS.TXT,DIR.TXT,UPLANG.TXT,ULTYPE.TXT,DIR.TXT MUST ALL BE ON DRIVE
1.
ANY OTHER DATA BASE FILE OR MESSAGE BASE CAN APPEAR ON ANY DRIVE.

2.11 Documentation printer (docpnt)
     docpnt is a program to print the contents of this file to the
screen or printer wihtou having to go to dos. You will be prompted

if output should be routed to the printer. If you answer yes, then
file will be displayed on both the screen and the printer.

2.12 FoReM Password Lister

     The program PASPRINT is used to create a hardcopy listing of the
names and passwords of the users of your system. When you select the
passowrd lister from the main start menu, pasprint will return a
request
for you to insert your data disk in drive 1. Pasprint will then read
you password file and create a listing on your printer of each user,
his password, number of calls, type of computer ,phone number and
access level. The end of the listing you tell you the total number
of passwords in the system. If an error occurs and pasprint prints
what looks like garbage passowrds, run the the PASFIX program to
correct any errors in the password file.

SECTION 3 - SYSTEM SET UP

TO FIRST SET UP THE SYSTEM

3.1

If using a Hayes smartmodem, you must set the switches as :

1 2 3 4 5 6 7 8   where U = up
U D U D U U U D   D = down

3.4

lines 29000-30000 of FoReM XE contains commands to hangup and
initialize a hayes compatible modem. This will allow FoReM XE
to work with the Anchor and Volksmodem modems.

****

Boot the program disk with the BASIC XE cartridge in the computer.
When the menu appears, hit break and type DOS.

1 From the dos menu, use option I to format a blank disk for each
drive
    to be used with forem.

****
****

3.5

Note:

     If using double sided or 8 inch drives, you must configure
DOS to your system. To do this, for each drive online, select
dos option O.

dos will return 'drive number or return'
enter the number of the drive you are configuring.
Dos will return 'remove drive?' answer no
dos will return 'is drive configuable?'
    if using an 810, 815 or a 1050, answer No.
    if you are using any other drive that is dual density,
    answer yes. Dos will then ask you about the drive.
    Is the drive double sided? yes or no
    number of tracks   double density 5/14 are 40 track
                        quad density 5/14 are 80 track
                         8" drives are 77 track

    step rate
        dos is expected a coded valued which is how fast the
        drive head can move from track to track on the disk
        Most 5/14 drives will be code 0.
****
**

2 Use option J to dupicate your program disk. (Make at least 1 or 2
   copies)

3 use dos option C to copy every file from you program disk to your
   working data disk that has a .TXT or .DAT extender

Copy the file BASICXE.OSS from this disk which came with the BASIC XE
   cart to the program disk.

****
**
NOTE ON DOS. If you are using an ATR 8000 with ds/dd or 8" drives,
you
should use the DOS option to create subdirectories on each disk
you use for data/download/uploads. You should create 4
subdirectories
on each disk and name them:
A
B
C
D

To do this, for each disk you will be using on the system, place
the disk in drive 1 (one at a time).
For each subdirectory to be created, select dos option q.
Enter the name of the subdirectory (A or B or C...)

The reason for this is that dos will only support a maximum of 64
files
in its directory. Rdos (MYDOS)supports a system of subdirectories
where
a file is created to act as a directory to other files. Each
subdirectory may also index 64 files. If you have short files on
your
system, it is possible with high capacity drives to have more than
64 files on a disk.

****
****

This dos does not support the enhanced density mode of the ATARI 1050
modem, however, you use any mix of single and double density 5 1/4 or
8" drives. A special version of FoReM is available upon request to
support the CORVUS hard disk system.

```
********************************************************************
****
```


4 With the program disk in Drive 1, reboot the system.
5 select menu option 2 - message file initialize
6 When prompt appears, insert working data disk in drive 1 and hit
return
   at this point, all formatted disks should be in the system drives
7 select option 1 initialise BBS
8 Answer Y to initalize password file.
9 When prompted, input the number of users you expect to have.
   Allow for at least 200-250 passwords.
10 Answer prompts for number of drives online and their density
11 Enter the number of message bases to set up, their names, and
amount
   of disk sectors. remember that a disk has 707 sectors and you
   must allow 100 double density sectors for the email file on drive
1
11 When initialization is complete, insert program disk in drive 1
and
   hit return toreturn to the main menu.
12 run foremXE. Enter the date mm/dd/yy and time hh:mm:ss
13 when the clock appears, press L to login.
14 at the password or return prompt, hit return. A message will be
   displayed telling how to apply for a password.
15 Fill out password application.
16 when main FoReM> prompt appears, type G to log off.
17 when prompt 'leave, are you sure appears', type Y (without a
carraige
    return.
18 answer Y to prompt 'Save password for future use.'
19 you wll then be logged off. when the clock reappears, press E to
end
   the program.
20 Reboot the computer with the program disk and load the password
mask
   maker. Create password mask for each level of access per
   instructions above.
21 Reboot and run option 1, password validator.

22 when menu appears, select option 1 to validate new users.
23 Enter the date when prompted. When your password is shown on the
    screen,validate it as per above using the password mask you
    created for sysop level.
24 you can now run FoReM and log on with full privileges.

SECTION 4.0 - SYSTEM MAINTENANCE

4.1

    As a sysop, you need to be aware of the amount of disk space
open your system. FoReM will automatically expanded the size of
the user password file if you did not allocate enough space when
you initialised the system. If drive 1 runs out of free sectors,
FoReM will crash when an attempt is made to add a new password.
As a rule, there should be a minimun of 15 double density sectors
free on drive 1 at all times. FoReM will not allow an upload to
drive one that would leave less than this amount. If your free space
on drive 1 falls below 15 sectors, you should do to dos and remove
any files that have been uploaded to drive 1 to free space. Any
other
drive may be as full of data base files and download files as you
like.
The amount of free sectors in the whole system is shown in the
lower right corner of the FoReM text window.

4.2

Password maintenance:

   Each new user must obtain a system password. His access to the
system will be limited until the sysop validates new users using
the password validator program. As passwords accumulate and fill up
disk space, it may be wise (or necessary) to delete the passwords of
users that have not been used in a long time. The auto delete mode
in the password validator program will allow you to automatically
rid the system of passwords that are no longer being used.
The validator program should be run at a interval convenient to you
and as often as necessary as users cannot use most of the system

unless their password has been validated.

As the password file grows, you may wish to have a printout of the
names of the users of your system for which you can run the
password lister (pasprint). Or, you may wish to sort the file so
that more frequent users can have faster access...(pwsort)

4.3
    The message system in FoReM is self-maintaining. All deleted
messages and message space maintenance is performed automatically
by FoReM during its 4 am message compaction (see above). It may
be desireable to you to renumber the system messages occasionally.
The message rebuilder program has an option to do this. This should
be done if the message numbers in any message base approach 10000,
as any message number above 9999 will generate a system error.

NUMBER OF MESSAGES THE SYSTEM CAN HOLD:

This system automatically maintains the message files. There is
enough memory
in the system to index approx 100 messages. This is a 100 element
queue so that
as the 101st messageis entered, the first one is lost. However, it is
only
eliminated from the index file. This is also true of a message that
is deleted
. It is only deleted from the index.
4 am, or if a caller is online at 4, immediatly after he logs off
the system will automatically compact the message data files, only
if a message has been deleted from the index.

In addition, if an attempt is made to save a message past and end of
file,
FoReM will save the message in a file called MTEMP.DAT,
delete the first 5 messages from the index, compact only the message
data base in use, and then resave the message.

4.4

WHERE DO UP/DOWNLOADS GO AND WHAT DRIVES CAN YOU USE:

This system supports multiple drives without any code modification. It can
run up to 4 drives in any mix of 8", 5 1/4", single sided, double sided,
double density...etc...
System logic is as follows.
for downloads, the system will scan from drive 1 to drive 4 looking for
the file.
for uploads, the system will start at the highest number drive it finds
online and scan backwards until it finds the first drive that can take the upload.

Upload/download maintenace:

     File uploaded to the system are catagorized by the user when
he uploads the file. For any file on the system, you may change
its file directory descriptor using the disk utilities program.
The most common use of this would be to change the access level
required to download the program.

SECTION 5.0 - WHEN AN ERROR OCCURS....

     Any error than FoReM finds in a disk data file will be seen
on your system log printout. FoReM will give you a BASIC XE error
number and the program line at which it occured. Most or all errors
will result from disk errors, whoever some bad user input may generate
an error message; specifically, if FoReM reports an error 5 at line
5115, a user entered a file name to up or download that was less
than 3 characters long.

Errors and what to do about them:

Error 7,25 or 26 in line ranges 40-70 or 6000-7000.
   The is a bad message file in the system.
   Run the message rebulider utility.
   If the problem remains, the message base which caused

the error must be reinitialised
Error 164 - bad links in a disk file.
            Copy files on your data disks to freshly formatted disks.
            then run mesage rebulder and the password validator
            to reset the system pointers.
Error 144 - bad sector on data disk.
            Copy files on your data disks to freshly formatted disks.
            then run mesage rebulder and the password validator
            to reset the system pointers.
Error 166 - Data files were moved to a new disk without running
            the message rebuilder and password validator.

SECTION 6 LOGGING ON

There are 2 ways to connect with FoReM. Local mode and remote mode.
FoReM
sits in a wait ring mode, checking for either keyboard input or for
carrier detect. If the L key is hit during wait ring mode, FoReM
will
immediately prompt for a user password.

If a carrier is detected, the caller must hit return once for 300
baud or
twice slowly for 1200 baud in order for foReM to detect the baud rate
the caller is at. Once ForeM has detected the baud rate, it will
send
a message stating that that a FoReM connection has been made, and at
what baud rate and time. The MOD indicator in the text window will
appear in inverse if a 1200 or 2400 baud connection has been made.

FoReM will then prompt the user to hit return. The user will be
notified
what atari translation mode he has connected at . If the user
has not connected in ascii mode, FoReM will ask the user if he
requires
line feeds. FoReM will then prompt for a password.

The password prompt is "password or return". FoReM is requesting a
4 character password. If the user does not have a password, hitting
return will send the user to the password application section.

If a password is enterd, forem will check it against the pas.dat
file.
If not match is found, forem will reprompt for password. If the
user doesnt get it right in 3 tries, FoReM will disconnect.

If a valid password is found, FoReM will ask the user to complete
his phone number as a security check. If incorrect, forem wil
reprompt
for the password.

On a valid password/phone number combination, the user will be given
his caller number, the name of the last caller , a welcome message
and system bulletins. If the user has a validated password (level 1
and
up), forem will check the email file for mail.

Mail check and Flagged Messages:

At logon, if the user has an access level>0, the system will check
the
Email file for messages to the user.
In addition, upon
entry into any message base, messages are checked. If a message is
found to be addressed to the user, the user in then given the option
to
read flagged messages where a flagged message is one that has been
flagged as being addressed to him. In this mode, only messages
addressed
to the user will be displayed.

After mail is checked, the user will be asked if foReM should search
all additional message bases for messages addressed to him.

FoReM will the go to the main system prompt: FoReM> at which
time any of the system commands the user is authorized to use
may be entered.

6.1 password application

If a return is entered at the password prompt, the user will be
shown a file explaining the why's of having a password. At this
point,
he may fapply for a system password, by filling out an online
application, or he my loggoff by typing : off in place of his name,
or sign on as a guest of the system, by typing the word guest.

If he applies for a password, he will be asked for his name,
telephone
number, age and a 4 character password which the system will check
for
uniqueness. If the password is ok, the system will inquire for the
users terminal characteristics (line length, ascii screen clear
code).
and will log the user on at level 0 with a non validated password.
(see new user defaults)

Section 7 - HELP!!!!

if you have any questions that DO NOT involve modifications to the
program, I can be reached at 301-552-2517 I will not discuss how
to modify it over the phone. If you have a specific modification
in mind, let me know via mail or my bbs (FoReM at 301-552-2574)
and I will get back to you.

                              Matthew R. Singer
                              7348 Green Oak Terrace
                              Lanham, Md 20706